

PENRHYN STONE

SLATE ROOFS OF QUALITY



Office of SPEER REALTY CO., Englewood, N. J.—Geo. A. Licht, Architect

DESCRIPTIVE CLASSIFICATION

Specifications for Graduated Architectural Roofs

PENNA. OFFICE
DRAKE BUILDING
EASTON, PA.

J.W. Williams Slate Company
Architertural Service Department: 103 Park Ave. New York
EASTON, PA.

VERMONT OFFICE
POULTNEY
VERMONT

PENRHYN STONE

THE quarries containing this slate rock lie mainly in the Penrhyn Hills on the border line of the states of Vermont and New York and were originally opened over fifty years ago when the demand was entirely for slate of commercial thickness and smooth surface. Blocks of slate that would not split thin enough and smooth enough to comply with the requirements were discarded and finally the quarries were closed down about twenty years ago.

In the meantime American Architects had developed an entirely changed conception of a slate roof--a transition from the strictly commercial type to a highly textural requirement of modified color tones that would blend harmoniously with the material used in construction. The abandoned quarries and discarded blocks of slate which through exposure to the elements had developed wonderful colorings proved when worked over by experienced craftsmen to have the rough surface texture so necessary to the desired Architectural effect.

Penrhyn Stone is produced by skilled craftsmen—quarried, split and trimmed entirely by hand into such sizes and thicknesses that each individual roof requires as determined by a study of the Architect's plans.

Penrhyn Stone is essentially an Architect's Slate and especially adaptable to roofs where texture, color, general excellence and integrity of the material itself in addition to the Architectural effectiveness, is the paramount object.

In the offering of Penrhyn Stone the Architectural Profession is assured that the quality, blend of colors and general Architectural excellence is unequalled by any other slate deposits in America. A roof of "Penrhyn Stone" has the immediate effect of a roof that has been laid for a great number of years--mellowness of color and beauty of texture.

ROOF DESIGN AND SERVICE

Our Architectural Department in New York will be pleased to prepare estimates and make suggestions based on any plans submitted—this service is without charge and all plans will be promptly returned.

On work of an important character we personally superintend the application of the slate and accept the responsibility attached to its completion in accordance with the intent and to the satisfaction of the Architect.



Residence of ALFRED G. SMITH, Greenwich, Conn. — *William F. Dominick, Architect*



Residence of OSCAR HAMMERSTEIN, Great Neck, L. I. — *Hunt & Kline, Architects*

Roof Architecture -

The English Cottage

THE growing popularity of the English type of Architecture for residential projects with its diversified effects in which the roof plays a highly important and conspicuous part has created an entirely new demand in roof service.

The use of slate as the roof covering is practically universal in England and no other roofing material possesses the natural surface texture and variation in color and thickness so necessary to create harmony between the roof and the structure itself and give the true Architectural effect.

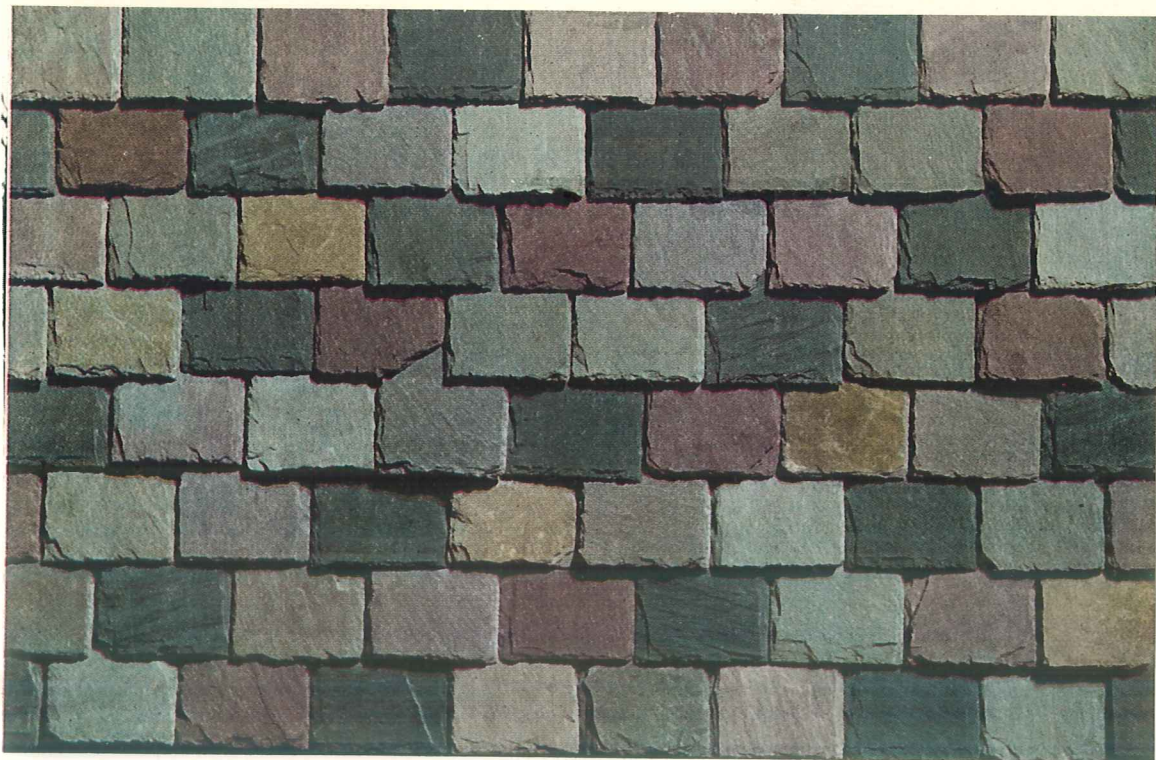
An English cottage in perspective is usually more than one-half roof and in order to be an Architectural success the roof calls for characteristic treatment by a trained organization experienced in roof Architecture and with an intimate knowledge of the possibilities connected with the slate produced and available in the Vermont and Pennsylvania quarries.

Many interesting and artistic effects in standard thickness slate can be produced by the mixing of various color tones provided care is taken in the harmonizing of the colors and the application of the slate so as to avoid the clashing of unfriendly colors or creating a checkerboard appearance which so frequently results in artistic failure and consequent disappointment.

The slate used may be limited to a single length in random widths or in graduated lengths and exposures which if correctly balanced produces a distinctive and individual effect although lacking the surface texture and depth of shadow so characteristic of the heavier thickness slate. By the intermixing of heavier slate a rougher and more textural appearance can be secured without undue increase of cost.

The color tones we introduce in this type of roof consist of varying shades of Grey, Weathering Greens, Rustics, Purples and Black--this combination when intelligently distributed in application gives a roof of dark general tone that after a few months exposure to allow of "weathering" brings out the final coloring, which is very distinctive and pleasing.

Where graduated lengths are specified it is necessary to have access to the Architects plans in order to determine the exact quantities required in each length and to prepare a layout for the guidance of the roofer in applying the slate--this service we render through our Architectural Department, 103 Park Avenue, New York City.





This house at Broadway, England, is perhaps the finest example of Cotswold architecture

Applying the Cotswold Style to America

Excerpt by permission from an article in "Country Life" written by Mr. Alfred Hopkins, Architect, New York

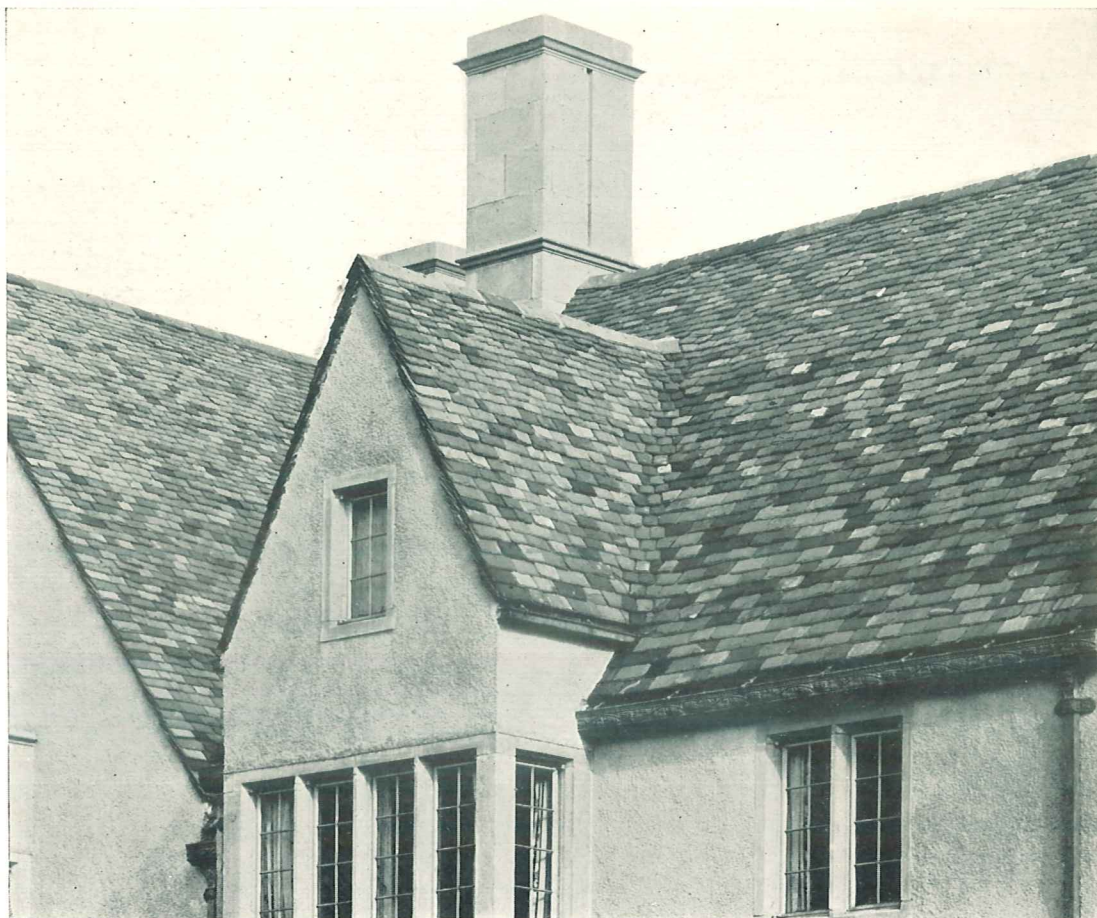
IN the scramble of our domestic building, my mind loves to revert to that peaceful and perfect architectural picture which greets the eye of the traveler in the rural districts of England, and particularly among the Cotswold hills of England.

Transplanting Cotswold to Connecticut, Pennsylvania, Ohio or Michigan is a delightful and absorbing task. In this transplanting of an old style into a new environment, certain principles must be observed in the adapting of the Cotswold type of design to the American home. The artistic principle on which the Cotswold buildings are composed is simplicity—simplicity of design, simplicity of material. The former is important, but for the moment I emphasize the latter. Simplicity of material means that, barring the glass in the windows and the wood in the doors, the entire exterior of the structure is carried out in stone.

I have given you an inkling of what the Cotswold walls are like, so I will come again to the roofs, and gladly, too, for I never grow weary of writing or talking about them. And, because they are so beautiful and so simple, I say the same thing over and over again. I always say that their beauty lies in their roughness, which is because the units are irregular and small; that in reproducing them our slate must be small, too; that our quarrymen still have much to learn about this sort of slate, and they acquire knowledge slowly; that we must graduate our slate courses, a pretty custom that is centuries old in England but, so far as I know, never practiced here until recently; that these graduated courses must run from four inches at the eaves to two inches at the ridge. All these things I have to say, because they are necessary to good roofing. Then there is the broad band at the ridge; and the ridge is vital, for it bounds the silhouette, and the outlines in all pictorial arts are difficult and important. The beautiful shadows of rounding surfaces soften the sculptor's work, and the painter has developed many ingenious tricks for blending the point of contact between one plane and another. So the ridge of the roof is vital, and the Cotswold ridges, like the sculptor's outlines are rounding and soft and never run to a straight line.

NOTE:—Mr. Hopkins has introduced the "Cotswold" type of Architecture in several of his recent residential designs. Interesting examples are the Residences of Mr. F. R. Huntington, Columbus, Ohio; Mr. H. Gilbert, Bowmansville, Pa.; Mr. J. W. Lawrence, Pittsburgh, Pa.; and Mr. H. Ledyard, Grosse Point, Mich., the latter of which is illustrated on the opposite page.

In each instance the roof is of Penrhyn Stone in small sized units and varying in color but of a dark general tone of weathered effect in thorough harmony with Cotswold Architecture.



Section of roof of Ledyard Residence showing effective use of small units of Slate



Residence of H. LEDYARD, Grosse Point, Mich. — *Alfred Hopkins, Architect*

Commercial Grades of Roofing Slate

THE following is a complete classification of the various grades of roofing slate obtainable in standard thickness (3-16"). The Blue-Grey Slates are produced exclusively in the Pennsylvania quarries and the various colored slates are quarried in the State of Vermont and in New York State on the border line of Vermont.

Slate of standard thickness is produced from beds that allow of a comparatively smooth surface only--where a rough surface texture is desired recourse must be had to heavier thicknesses from quarter inch up to an inch or over which are classified as "Architectural Slate" and mainly specified in graduated thicknesses and lengths.

VERMONT COLORED SLATES

VERDELITE UNFADING GREEN

Verdelite Unfading Green is of a shade of green that is not only uniform and positively unfading, but has none of the dullness or grey color so characteristic of all other so-called unfading greens. When first laid on the roof it is a light green, but it soon assumes a uniformly dark rich green that is permanent and unchangeable in color.

WEATHERING GREEN

A Green-Grey Slate of excellent quality and texture, an uncertain percentage of which after exposure on the roof for a short period will develop into varying shades of Buff, Brown and Yellow. Whilst the degree or nature of the color change is not pre-determinable, this very quality when used intelligently in mixture is very valuable in producing a roof effect of decidedly warm color.

MOTTLED GREY

A greenish Grey Slate of excellent quality and good texture with streaks or mottlings of darker grey. This interesting Slate is especially adaptable and is recommended for use in connection with the Colonial type of architecture and for this reason is often referred to as "Colonial Grey"—properly classified as of an unfading color. Mottled Grey is also of great value in combination with Purples and Weathering Greens for roofs where mixed color effects are desired.

VARIEGATED GREEN AND PURPLE

An unfading Slate in which the Purple and Green is beautifully blended that it resembles an Opál in appearance. The different beds of the quarry from which this Slate is obtained vary in shadings; generally speaking there are two classifications—light and dark. This Slate has remarkably good texture and the quality is excellent; it makes a beautiful roof without any other mixture but blends well in a mixture of dark Grey and Unfading Green.

DARK MOTTLED PURPLE

A deep rich Purple in which slight markings of Green appear, and one of the few Purple Slates that retain their original color. For this reason it is exceptionally valuable in mixture.

SEA GREEN

Commercial term for a Greyish Slate produced in the Granville (New York) district. The name is somewhat misleading as it is not Green and the color fades variably on exposure and may cause disappointment unless used in mixture. It has a much smoother surface texture than other colored Slates.

NOTE:—This list is confined to Slates procurable in standard thickness. Other colorings are available in "Penrhyn Stone" mixtures for Architectural roofs in graduated thickness.

PENNSYLVANIA BLUE-GREY SLATES

GENUINE BANGOR

A rich Blue-Grey Slate of high quality produced in two grades.

NO. 1 CLEAR

Uniform surface, even thickness, approximately 3-16", with full corners and clear stock.

NO. 1 RIBBON

Produced from the same beds as No. 1 Clear, but portions of the Slate contain dark streaks or markings which are entirely hidden when the Slate is laid on the roof with the regulation three-inch head lap. The Slate is high grade and presents the same appearance when laid, as a roof of the selected No. 1 Clear Slate. Specified by U.S. Government for the roofs for the most of the large Veterans Hospitals erected in recent years.

GENUINE ALBION

Produced in the Pen Argyl region of Pennsylvania and usually offered under the classification of Albion-Bangor. Slate produced from the Genuine Albion veins is a good quality Slate and can be recommended where a less expensive Slate than Genuine Bangor is desired. Unfortunately many quarries not operating on the Albion Vein offer an inferior product under this classification and care should be exercised in specifying "Genuine Albion."

FRANKLIN BIG BED—FRANKLIN TUNNEL—WASHINGTON BIG BED

This Slate is produced in the Slatington region of Pennsylvania and on roofs of large area it is unequalled, owing to the absence of varying shades of tone in the color effect—this is due to the large size of the beds of slate from which it is produced.

ROUGH CLEFT BLUE-GREY SLATE

Until recently the use of a Blue-Grey Slate was confined to smooth surfaced material of standard thickness but the demand of the Architectural profession for a rough textured Slate of Architectural quality has become insistent.

To meet this demand we are producing a rough cleft Slate in thicknesses from $\frac{1}{4}$ " to 1" and in varying lengths and widths for graduated exposures. Many leading Architects are specifying this Slate for roofs of graduated lengths and thicknesses as well as in mixture with other colors of Penrhyn Stone of a rough texture.

THE following Slate Roofs along with others have recently been supplied by the J. W. Williams Slate Company. The roof layout was prepared by the Architectural Service Department from the Architect's plans and specifications.

Name	Location	Architect
Eben S. Church, Residence	Bedford, N. Y.	Randall Henderson
Col. H. H. Rogers, Residence	Southampton, L. I.	John Russell Pope
Giles K. Tinker, Residence	Oyster Bay, L. I.	Polhemus & Coffin
E. D. Adams, Residence	Rumson, N. J.	Simpson & Rolston
Geo. A. Bomann, Residence	Scarsdale, N. Y.	Geo. F. Root, 3rd
H. W. Lowe, Residence	Wheatley Hills, L. I.	John Russell Pope
Prof. John Erskine, Residence	Wilton, Conn.	Moore & Woodbridge
Geo. A. Licht, Archt., Residence	New Rochelle, N. Y.	Geo. A. Licht
Geo. R. Thompson, Archt. Residence	Hempstead, L. I.	Geo. R. Thompson
S. Forry Laucks, Residence	Wrightsville, Pa.	Delano & Aldrich
D. Raymond Edgar, Residence	Metuchen, N. J.	H. H. Wheeler
D. W. Dilworth, Res. & Garage	Locust Valley, L. I.	J. H. DeSibour
Dr. O. H. Leber, Residence	Montclair, N. J.	William G. Killian
Mrs. J. E. Linde, Residence	Red Bank, N. J.	Lyon & Taylor
P. H. Burnett, Residence	Woodbury, L. I.	Alfred R. Wittich
R. O. Lipton, Residence	Westfield, N. J.	D. Wentworth Wright
Edwin S. Isham, Residence	Brielle, N. J.	John B. Peterkin
Hubert E. Rogers, Residence	Scarborough, N. Y.	Delano & Aldrich
L. Suffern Tailer, Residence	Rumson, N. J.	Polhemus & Coffin
A. D. Barney, Residence	Farmington, Conn.	Heathcote M. Woolsey
J. W. Lawrence Gate Lodge	Pittsburgh, Pa.	Alfred Hopkins
Gelston B. Morris, Res. & Garage	Briarcliff Manor, N. Y.	Almus P. Evans
Col. J. Mayhew Wainwright, Residence	Rye, N. Y.	Woolsey & Chapman
Lewis E. Stoner, Residence	West Hartford, Conn.	Malmfeldt & Prentice
O. K. Perry, Residence	Interlaken, N. J.	Stanley & Wheeler
W. J. MacLaughlin, Residence	Montclair, N. J.	Frank H. Vreeland
Julius L. Sussman, Residence	Great Neck, L. I.	Arthur W. Coote
Edw. Ingraham, Residence & Garage	Bristol, Conn.	Richard H. Dana, Jr.
Jas. F. McClelland, Residence	Greenwich, Conn.	Richard H. Dana, Jr.
Arthur A. Hartmann, Residence	Brightwaters, L. I.	Lawler & Haase
Mrs. John R. McGinley, Residence	Princeton, N. J.	Rolf William Bauhan
W. J. Donovan, Residence	Peekskill, N. Y.	Chester A. Patterson
Wm. Lawson, Residence	Mamaroneck, N. Y.	E. D. Parmelee
Judge W. D. Van Riper, Residence	West Orange, N. J.	Hobart A. Walker
Chas. M. Chapin, Residence	Bernardsville, N. J.	Delano & Aldrich
W. S. Griswold, Residence	Hartford, Conn.	Walter P. Crabtree
Col. Jacob Ruppert, Residence	Garrison, N. Y.	Maynicke & Frank
Mrs. Maria Van Wagner, Residence	Roselle, N. J.	D. Wentworth Wright
C. E. Reeb, Residence	Westfield, N. J.	D. Wentworth Wright
Bernard Residence	Pasadena, Calif.	Morgan, Wells & Clements
Greenhouses for Miss Marion Davies	Beverly Hills, Calif.	
Felix Warburg, Residence	White Plains, N. Y.	Arnold Brunner, Ass.
Hewlett School	Rockville Centre, L. I.	Huse T. Blanchard
Miss Chapin's School	New York City	Delano & Aldrich
Golf Club House, Silver Lake Park	Tompkinsville, S. I.	Sibley & Fetherston
Mead Memorial Chapel	Lake Waccabuc, N. Y.	Hobart Upjohn
First Church of Christ Scientist	Great Neck, L. I.	Robert Tappan
Mr. and Mrs. J. Atkin, Residence	Pasadena, Calif.	Paul R. Williams
Eddie Cantor, Residence	Great Neck, L. I.	A. F. Gilbert
Greenwich Country Club	Greenwich, Conn.	Wm. F. Dominick
Grade & High School	King's Park, L. I.	Tooker & Marsh
Frank H. Davis, Residence	Montclair, N. J.	Clifford C. Wendehack
Tuberculosis Hospital	Farmingdale, L. I.	Jallade & McKenna
Mr. & Mrs. G. Edward Leh, Residence	Allentown, Pa.	Tilghman Moyer Co.
Sir Thomas Tait, Residence	St. Andrews, N. B., Canada	Maxwell & Pitts, Montreal
Harry Sirkin, Residence	Jamaica Estates, L. I.	Hunt & Kline
Great Meadows Prison	Comstock, N. Y.	Wm. E. Haugaard
Grade & High School	Long Beach, L. I.	Howard Leland Smith
Charles H. Hoch, Residence	Allentown, Pa.	Jacoby & Everett
Jos. Leonard, Residence	Allentown, Pa.	C. M. Lovelace
Roswell Miller, Residence	Millbrook, N. Y.	Almus P. Evans, N. Y.
C. H. Veeder, Residence	Hartford, Conn.	Brooks, Glazier & Adams
Oscar Hammerstein, II, Residence	Great Neck, L. I.	Hunt & Kline, N. Y.
F. R. Huntington, Residence	Columbus, O.	Alfred Hopkins, N. Y.
H. Ledyard, Residence	Grosse Point, Mich.	Alfred Hopkins, N. Y.
H. Gilbert, Residence	Bowmansdale, Pa.	Alfred Hopkins, N. Y.

Name	Location	Architect
F. C. Goode, Residence	Larchmont, N. Y.	Kenneth Watkins
Dr. R. Blum, Residence	Harrison, N. Y.	S. D. Eisendrath
J. C. Clark, Residence	Bernardsville, N. J.	Delano & Aldrich
Arthur E. Jones, Residence	Summit, N. J.	Geo. E. Jones
Mrs. F. E. Tupper, Residence	Montclair, N. J.	Holmes & Von Schmid
L. N. Creighton, Residence	Montclair, N. J.	Donald Anderson
Dr. Bernheim, Residence	Greenwich, Conn.	Frank E. Newman
James D. Skidmore, Residence	Short Hills, N. J.	Rossiter & Muller
Richard Liggett, Residence	Litchfield, Conn.	Richard Dana, Jr.
H. T. Fleitman, Residence	Brookville, L. I.	James W. O'Connor
Chas. Blackwell, Residence	Brookville, L. I.	Polhemus & Coffin
Allan Mann, Residence	Scarsdale, N. Y.	Electus Litchfield
Jansen Noyes, Residence	Fishers Island, N. Y.	Frank E. Newman
Alfred G. Smith, Residence	Greenwich, Conn.	W. F. Dominick
W. B. Goodwin, Residence	Hartford, Conn.	Benj. Morris
C. Allen Hudson, Residence	Rumson, N. J.	Polhemus & Coffin
Lester A. Bassett, Residence	Great Neck, L. I.	Lester A. Bassett
Justin B. Ward, Residence	Irvington-on-Hudson	Delano & Aldrich
George R. Pensel, Residence	Amsterdam, N. Y.	Fuller & Robinson
Dr. McFadden, Residence	Shelbyville, Ind.	Frank B. Hunter
Edward L. Taylor, Residence	Williamsport, Pa.	Ornan H. Waltz
J. R. Ellis, Residence	Memphis, Tenn.	J. R. Ellis
Geo. Fitzmaurice, Residence	Beverly Hills, Calif.	Roy Seldon Price
Chas. & Al. Christie, Residence	Beverly Hills, Calif.	Leland F. Fuller
Arthur Letts Est., Residence	Holmby Hills, Calif.	Arthur Kelly
Geo. A. Morrell, Residence	Ottumwa, Iowa	Tunsley & McBroom
Warren, Residence	Summit, N. J.	Forman & Light
Staats, Residence	Los Angeles, Calif.	Marston, VanPelt & Maybury
J. Hancock, Residence	Beverly Hills, Calif.	Jos. M. Savage
J. F. Potter, Residence	Hollywood, Calif.	Nat. Coleman
O. B. Englisch, Residence	Los Angeles, Cal.	Arthur Kelly
Armand Chevalier, Residence	Senville, P. Q.	J. Cecil McDougall
N. Y. City School No. 32	Eltingsville, S. I.	W. H. Gompert
Newman School	Lakewood, N. J.	Richard H. Dana, Jr.
N. Y. City School No. 38	Rosedale, L. I.	W. H. Gompert
Edgemont School	Montclair, N. J.	Starret & VanVleck
St. Teresa's School	North Tarrytown, N. Y.	Knappe & Morris
South Orange High School	South Orange, N. J.	Gilbert & Betelle
Roosevelt School	Montrose, N. Y.	Knappe & Morris
Nutley High School	Nutley, N. J.	Gilbert & Betelle
Hibberd School	Richmond, Ind.	Perkins, Fellows & Hamilton
Russell School	Los Angeles, Calif.	Orville L. Clark
Second Street School	Los Angeles, Calif.	C. M. Hutchison
Wilmington High School	Los Angeles, Calif.	Austin & Ashley
Brescia Hall Dormitory	New Rochelle, N. Y.	McGill & Hamlin
Bloomfield Library	Bloomfield, N. J.	John F. Capen
Olin Memorial Library	Middletown, Conn.	McKim, Meade & White
Fishers Island Golf Club	Fisher's Island, N. Y.	Parsons & Wait
Miriam Osborne Home	Rye, N. Y.	Crow, Lewis & Wick
Yountakah Country Club	Nutley, N. J.	C. Wendehack
Peekskill Military Academy	Peekskill, N. Y.	Frank A. Moore
W. J. Z. Radio Corp. America	Bound Brook, N. J.	Clinton McKenzie
W. E. A. F. Radio Corp. America	Bellmore, L. I.	Clinton McKenzie
Hi-Power Receiving Station	Belfast, Me.	Clinton McKenzie
State Homeopathic Hospital	Middletown, N. Y.	Sullivan Jones
State Insane Asylum Buildings	Asyla, N. J.	Walter W. Sharpley
Nurses Home	Tompkinsville, S. I.	Delano & Aldrich
N. Y. Central Station	West Point, N. Y.	N. Y. C. Eng. Dept.
Nathan Littauer Hospital	Gloversville, N. Y.	Crow, Lewis & Wick
St. Michael's R. C. Church	Jersey City, N. J.	Reroofed
St. Patrick's R. C. Church	Jersey City, N. J.	Reroofed
St. Peter's R. C. Church	Jersey City, N. J.	Reroofed
Simpson Grace M. E. Church	Jersey City, N. J.	Chas. G. Jones
First Baptist Church	Plainfield, N. J.	Hobart Upjohn
Morrow Memorial Church	Maplewood, N. J.	F. Y. Parsons
First Church of Christ Scientist	Montclair, N. J.	Chas. B. Faulkner
M. E. Church	Farmingdale, L. I.	Julius Gregory
Hyde Park M. E. Church	Cincinnati, Ohio	Grange, Lowe & Bollenbacher
St. Rose Church	Belmar, N. J.	J. O. Rourke
Church of the Redeemer	Morristown, N. J.	Wesley S. Bessell
Chapel, Women's College of N. J.	New Brunswick, N. J.	State Architect
St. James Church	Los Angeles, Calif.	
W. R. Weldon, Residence	Pasadena, Calif.	Gilbert S. Underwood, Archt.
Thomas R. Cox	Englewood, N. J.	Polhemus & Coffin, Archts.

SPECIFICATIONS *for* GRADUATED SLATE ROOFS

GENERAL AND GUARANTEE

- (a) The Roofing Contractor shall furnish all the materials and labor in accordance with the drawings and these specifications.
- (b) This contractor shall inspect all surfaces prepared for slating by other trades, point out to the proper authority any defects, and shall not proceed with the laying of felt, flashings or slate until such corrections that may be necessary have been made.
- (c) The Roofing Contractor shall furnish his own scaffold or rigging, or arrange with the General Contractor for the use of scaffolds furnished by others.

ROOFING FELT

- (a) On all boarding to be covered with slate, lay asphalt saturated rag felt, not less in weight than that commercially known as "30 pound" felt.
- (b) Felt shall be laid in horizontal layers with joints lapped toward eaves and at ends at least 2" and well secured along laps and at ends to properly hold the felt in place and protect the structure until covered by the slate. All felt shall be preserved unbroken, tight and whole.
- (c) The felt shall lap over all hips and ridges.
- (d) Felt shall be lapped 2" over the metal of any valleys or built-in gutters.

HIPS

All hips shall be (mitred, boston, saddle or fantail)

RIDGES

All ridges shall be strip saddle type with butt joints.

VALLEYS

Valleys shall be (open, closed or rounded)

ELASTIC CEMENT

Cement shall be an approved brand of waterproof elastic slater's cement colored to match as nearly as possible the general color of the slate.

NAILS

- (a) All slate shall be fastened with large flat-head slater's copper nails of sufficient length to adequately penetrate the sheathing. Care should be taken to avoid exposing the nails on cornice, soffits, overhanging eaves, etc.
- (b) Nails securing slate must in no instance be driven through flashing.

SLATING

- (a) The entire surface of all main and porch roofs, the roofs and sides of any dormer windows (if shown) and all other surfaces so indicated on the drawings, shall be covered with PENRHYN STONE in varied color tones as furnished by the J. W. WILLIAMS SLATE CO., 103 Park Ave., New York City, in thicknesses ranging from to not less than $\frac{1}{4}$ " in a combination of sizes as shown on layout to be furnished by the slate producer and approved by the Architect.
- (b) Slate to range in length from at the eaves with exposure to at ridge, with exposure. The different thicknesses of slate are to be intermixed in each course in accordance with the schedule as shown on layout in order to produce an interesting textural effect by the contrasting thicknesses.
- (c) The slate shall project at the eaves and at all gable ends as directed, and shall be laid in horizontal courses with the standard 3" headlap, and each course shall break joints with the preceding one. Slates at the eaves or cornice line shall be doubled and canted so that the succeeding course will have flat contact.
- (d) Slates overlapping sheet metal work shall have the nails so placed as to avoid puncturing the sheet metal. Exposed nails shall be permissible only in top courses where unavoidable.
- (e) Neatly fit slate around any pipes, ventilators, etc.
- (f) Cover all exposed nail heads with elastic cement. Hip slates and ridge slates shall be laid in elastic cement spread thickly over unexposed surface of under course of slate.
- (g) Build in and place all flashing pieces furnished by the sheet metal contractor and co-operate with him in doing the work of flashing.
- (h) On completion the roof shall be left in every respect tight and a neat example of workmanship.